

Amendment
Serial No. 10/777,189
Attorney Docket No. 042107

REMARKS

Claims 1-15 are pending in this application. Claims 7-15 are allowed. Claims 1 and 3 are amended. No new subject matter is added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated May 19, 2005.

The Examiner rejected claims 1-4 and 6 under 35 U.S.C. §102(b) as being anticipated by *Umematsu et al.* (U.S. Pat. 6,399,897). Applicants amend claims 1 and 3 to clarify that the “substrate” is a “semiconductor substrate”. Support for this amendment is found, for example, in Figure 1. In view of this amendment and the following remarks, Applicants respectfully request that the Examiner withdraw the rejections of claims 1-4 and 6.

A claim is only anticipated if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. Here, for example, *Umematsu et al* does not disclose “first and second guard rings being connected with each other mechanically and continuously by a bridging conductor pattern extending continuously in a band form along a region including said first and second guard rings, when viewed in the direction perpendicular to said semiconductor substrate.” For instance, the Examiner incorrectly characterized the “dummy power supply wiring pattern 56(a)” of the cited reference as the bridging conductor pattern of the claimed invention.

Furthermore, *Umematsu et al.* merely teaches a multilayer printed circuit board. For example, Fig. 5A of the cited reference teaches the structure of providing semiconductor chips 51

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on a printed circuit board 12. Further, the primary object of providing the peripheral region in *Umematsu et al.* is to avoid deformation of the multilayer wiring structure at the time of CMP process. (See col. 1, lines 45 et seq.) The reference refers to the problem of moisture penetration only in relation to this deformation of the multilayer wiring structure at the peripheral edge of the printed circuit substrate. Whereas, the present invention provides a guard ring structure for blocking penetration of moisture at the peripheral edge of each chip. In the production of such semiconductor devices, the CMP process is applied to a semiconductor wafer, in which the semiconductor chips are arranged in the state that they are not yet separated from each other. Thus, the problem of *Umematsu et al.*, in which the CMP process is applied to each of the printed circuit boards individually, does not take place in the production of the semiconductor chips. Thus, there is no motivation to modify the teachings of Umematsu to derive the subject matter of the present invention as set forth in claim 1.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of these claims.

The Examiner rejected claim 5 under 35 U.S.C. §103(a) as being unpatentable over *Umematsu et al.* in view of *Usi* (U.S. 2005/0082577). Applicants respectfully disagree with the Examiner's position, because the claimed invention, which is not disclosed or suggested in *Umematsu et al.* or *Usi*, is not obvious from the teachings of these references. Also, claim 5 depends from independent claim 1, and should likewise be allowable by nature of dependency.

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In view of this and the following remarks, Applicants respectfully request that the Examiner withdraw the rejection of claim 5.

An object of the present invention, for example, is to provide a semiconductor device having a guard ring capable of blocking invasion of moisture or gas into the semiconductor device from outside effectively and with reliability [p. 3.] In order to satisfy this objective, the present device, for example, provides a bridging conductor pattern (23C or 27C) that functions as a bulkhead or compartment wall compartmenting the region between the guard ring 33A and the guard ring 33B into plural compartments [p. 18, lines 6-10, FIG. 6.] The discovery of the problem described in the specification and shown in FIG. 2 is not taught or suggested by the references cited by the Examiner. Thus, it would not have been obvious to have a bridging conductor pattern provided in all of said interlayer insulation films.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of this claim.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

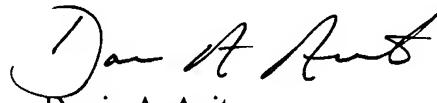
Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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